

AMENDMENTS TO THE CLAIMS:

Please add new claim 39:

1. (Previously Presented) A light emitting apparatus, comprising:
 - a solid-state light emitting element;
 - a power supply member that supplies power to the solid-state light emitting element;
 - a reflection section that is disposed opposite to a light extraction surface of the solid-state light emitting element to reflect light emitted from the solid-state light emitting element
 - a heat radiation member that is disposed with a heat radiation width in a back direction of the solid-state light emitting element;
 - an insulating layer disposed between the power supply member and the heat radiation member; and
 - a case in which the reflection section and the heat radiation member are placed and which externally radiates heat to be transferred from the heat radiation member,
 - wherein the case is integrated with the heat radiation member, the case comprises an inner wall surface with a high reflectivity, and the case has a high heat conductivity, and
 - wherein the heat radiation member comprises a planar member disposed parallel to a light extraction direction of the light emitting apparatus,
 - the power supply member, which is separate from said heat radiation member, is secured to an end face of the planar member,
 - the solid-state light emitting element is mounted on the end face of the planar member, and
 - the planar member is disposed parallel to a longitudinal direction of the power supply

member.

2. (Previously Presented) A light emitting apparatus, comprising:

a solid-state light emitting element;

a power supply member that supplies power to the solid-state light emitting element;

a reflection section that is disposed opposite to a light extraction surface of the solid-state light emitting element to reflect light emitted from the solid-state light emitting element;

a heat radiation member that is disposed with a heat radiation width in a back direction of the solid-state light emitting element;

an insulating layer disposed between the power supply member and the heat radiation member; and

a case in which the reflection section and the heat radiation member are placed and which externally radiates heat to be transferred from the heat radiation member,

wherein the case is integrated with the heat radiation member, the case comprises an inner wall surface with a high reflectivity, and the case has a high heat conductivity, and

wherein the heat radiation member comprises a planar member disposed parallel to a light extraction direction of the light emitting apparatus,

the power supply member, which is separate from said heat radiation member, is secured to an end face of the planar member,

the solid-state light emitting element is mounted on the end face of the planar member, and

the planar member is disposed parallel to a longitudinal direction of the power supply member.

3. (Previously Presented) The light emitting apparatus according to claim 2, wherein:
the heat radiation member comprises a same material as the case.
4. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the solid-state light emitting element is packaged such that the solid-state light emitting element is sealed with a light transmitting material.
5. (Previously Presented) The light emitting apparatus according to claim 2, wherein:
the solid-state light emitting element is packaged such that the solid-state light emitting element is sealed with a light transmitting material.
6. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the solid-state light emitting element is flip-chip mounted on an inorganic material board on which a conductive pattern is formed to supply power to the solid-state light emitting element, and
the solid-state light emitting element is sealed with an inorganic seal material that has a thermal expansion coefficient nearly equal to that of the inorganic material board.
7. (Previously Presented) The light emitting apparatus according to claim 6, wherein:
the inorganic seal material comprises glass.
8. (Previously Presented) The light emitting apparatus according to claim 6, wherein:

the inorganic material board seals the solid state light emitting element while bonding in chemical reaction to the inorganic seal material.

9. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the solid-state light emitting element is sealed with the inorganic seal material with a refractive index of 1.55 or more.
10. (Previously Presented) The light emitting apparatus according to claim 2, wherein:
the case comprises a high reflectivity surface to reflect the light.
11. (Previously Presented) The light emitting apparatus according to claim 2, wherein:
the case comprises a surface that is subjected to a finishing to increase its heat radiation area.
12. (Previously Presented) The light emitting apparatus according claim 1, wherein:
the heat radiation member comprises a heat radiation plate that comprises a high reflectivity surface to reflect the light.
13. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the heat radiation member comprises:
a heat radiation support that comprises a high thermal conductivity material and transfers to the heat radiation member heat generated from the solid-state light emitting element, and

a heat radiation plate that transfers the heat through the heat radiation support.

14. (Previously Presented) A light emitting apparatus, comprising:

a solid-state light emitting element;

a power supply member that supplies power to the solid-state light emitting element;

a reflection section that is disposed opposite to a light extraction surface of the solid-state light emitting element to reflect light emitted from the solid-state light emitting element;

a heat radiation member that is disposed with a heat radiation width in a back direction of the solid-state light emitting element;

an insulating layer disposed between the power supply member and the heat radiation member; and

a case in which the reflection section and the heat radiation member are placed and which externally radiates heat to be transferred from the heat radiation member,

wherein the case is integrated with the heat radiation member, the case comprises an inner wall surface with a high reflectivity, and the case has a high heat conductivity, and

wherein the power supply member is formed with a width in the back direction of the solid-state light emitting element,

the heat radiation member comprises a planar member disposed parallel to a light extraction direction of the light emitting apparatus,

the power supply member, which is separate from said heat radiation member, is secured to an end face of the planar member,

the solid-state light emitting element is mounted on the end face of the planar member,

and

the planar member is disposed parallel to a longitudinal direction of the power supply member.

15. (Previously Presented) The light emitting apparatus according to claim 1, wherein:

the power supply member comprises a metallic thin film and is disposed with a width in the back direction of the solid-state light emitting element and is integrated with the heat radiation member while being insulated from the heat radiation member.

16. (Previously Presented) The light emitting apparatus according to claim 15, wherein:

the power supply member comprises a metallic thin film and is sandwiched through an insulator between a plurality of heat radiation plates to compose the heat radiation member.

17. (Previously Presented) The light emitting apparatus according to claim 1, wherein:

a spectrum light with plurality of region wavelengths is radiated from the solid-state light emitting element or from the periphery of the solid-state light emitting element.

18. (Previously Presented) The light emitting apparatus according to claim 17, wherein:

a phosphor is disposed on the periphery of the solid-state light emitting element.

19. (Previously Presented) The light emitting apparatus according to claim 1, wherein:

the heat radiation member has the heat radiation width that is three times or more its thickness.

20. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the solid-state light emitting element has a width that is within five times that of the
solid-state light emitting element.
21. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the heat radiation member comprises a shape that protrudes toward a bottom of the
reflection surface.
22. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the reflection surface opposite to the solid-state light emitting element comprises a
solid angle of 2π to 3.4π strad.
23. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the solid-state light emitting element comprises a light source with a turn-on power of
1 W or more.
24. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the reflection section comprises a resin material.
25. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the solid-state light emitting element comprises one of a plurality of solid-state light
emitting elements.

26. (Previously Presented) The light emitting apparatus according to claim 1,
wherein the light emitting apparatus further comprises:

a plurality of solid-state light emitting elements and

a plurality of heat radiation members, the heat radiation members corresponding to the
plurality of solid-state light emitting elements.

27. (Previously Presented) The light emitting apparatus according to claim 1, wherein:
the plurality of solid-state light emitting elements generate a plurality of emission
colors.

28. (Previously Presented) The light emitting apparatus according to claim 27, wherein:
the plurality of solid-state light emitting elements generate emission colors of R, G and
B.

29. (Previously Presented) A light emitting apparatus, comprising:
a solid-state light emitting element;
a power supply member that supplies power to the solid-state light emitting element
a reflection section that is disposed opposite to a light extraction surface of the solid-
state light emitting element to reflect light emitted from the solid-state light emitting element;
and
a heat radiation member that is disposed with a heat radiation width in a back direction
of the solid-state light emitting element; and

a case in which the reflection section and the heat radiation member are placed and which external radiates heat to be transferred from the heat radiation member,

wherein the case is integrated with the heat radiation member, the case comprises an inner wall surface with a high reflectivity, and the case has a high heat conductivity, and

wherein the heat radiation member is separated from the power supply member,

the heat radiation member comprises a planar member disposed parallel to a light extraction direction of the light emitting apparatus,

the power supply member, which is separate from said heat radiation member, is secured to an end face of the planar member,

the solid-state light emitting element is mounted on the end face of the planar member, and

the planar member is disposed parallel to a longitudinal direction of the power supply member.

30-33. (Canceled)

34. (Previously Presented) The light emitting apparatus according to claim 1, wherein the power supply member is insulated from the heat radiation member by the insulation layer.

35. (Canceled)

36. (Previously Presented) The light emitting apparatus according to claim 1, wherein said heat radiation member further comprises a second planar member disposed perpendicular to

and intersecting said planar member.

37. (Previously Presented) The light emitting apparatus according to claim 1, wherein said planar member comprises a front surface, a rear surface, and said end face, a surface area of said end face is smaller than a surface area of said front surface and the surface area of said end face is smaller than a surface area of said rear surface.

38. (Previously Presented) The light emitting apparatus according to claim 1, wherein said planar member has a width and thickness, the thickness corresponding to said end face, and wherein the width of the planar member is larger than a thickness of the end face.

39. (New) The light emitting apparatus according to claim 1, wherein the power supply member comprises a lead and the planar member is disposed parallel to a longitudinal direction of the lead.